A 36.96:41

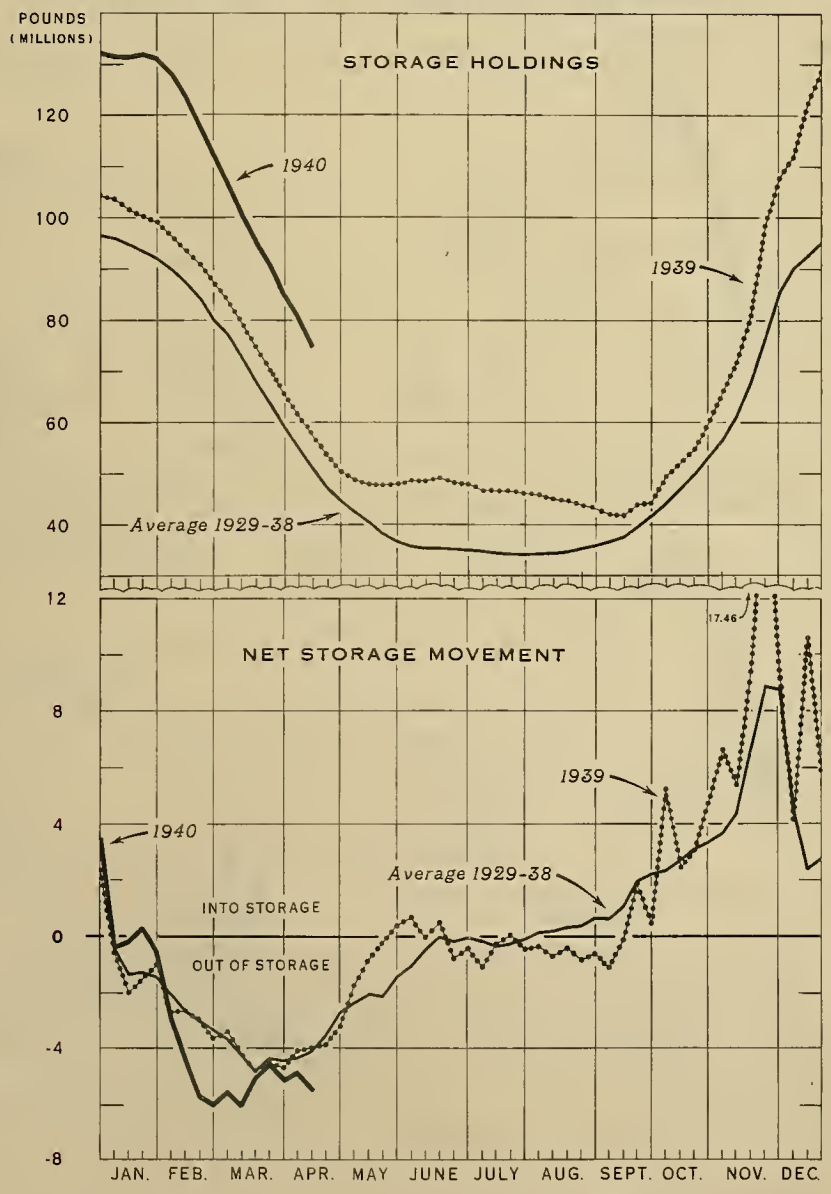
THE Poultry and Egg SITUATION

BUREAU OF AGRICULTURAL ECONOMICS
UNITED STATES DEPARTMENT OF AGRICULTURE

PES-41 BAE MAY 1, 1940

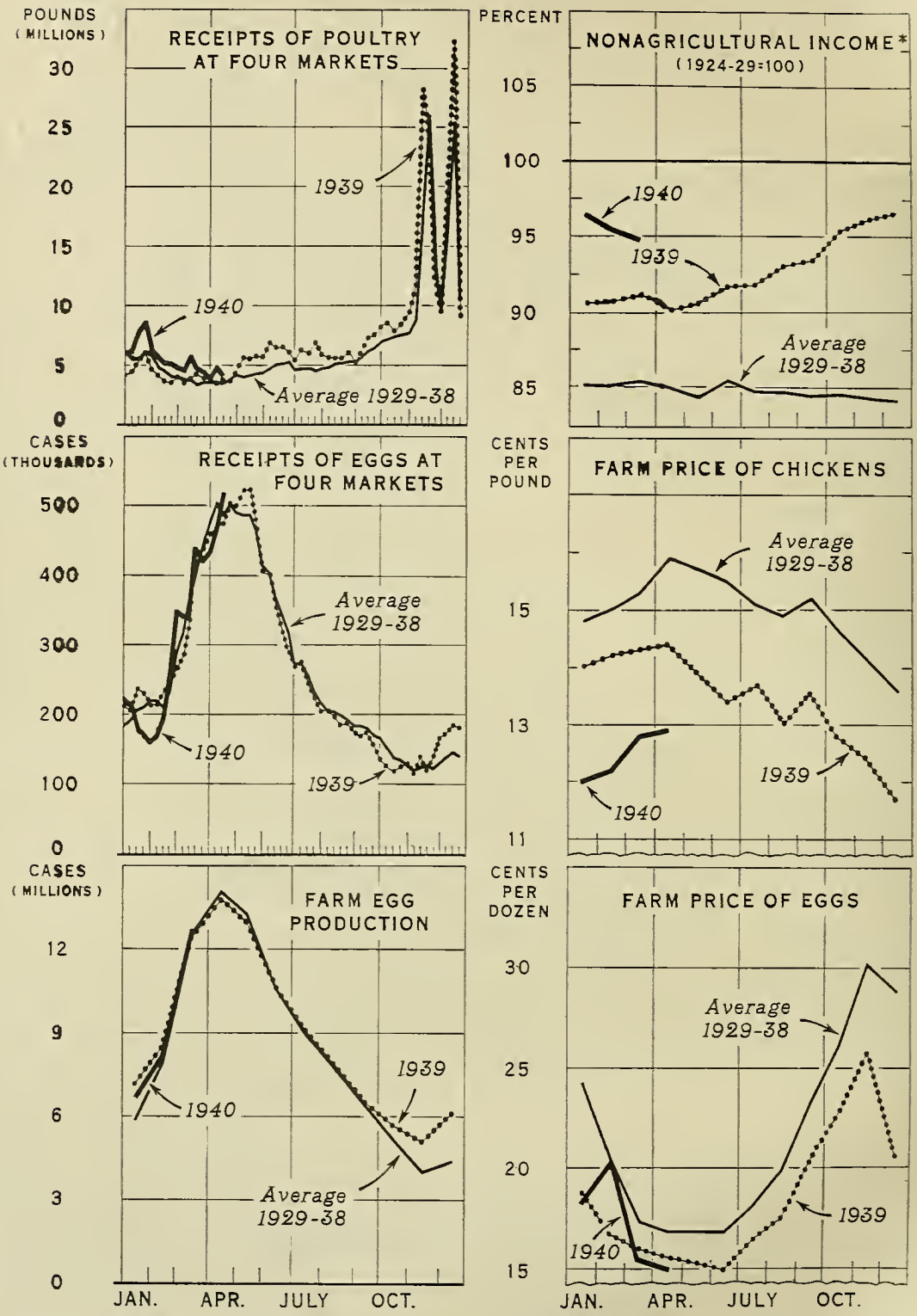
:IN THIS ISSUE: A COMPARISON OF FOUR:
:FEED-EGG RATIOS, BY H. C. KRIESEL :

STORAGE HOLDINGS AND MOVEMENT OF FROZEN POULTRY AT 26 MARKETS, AVERAGE 1929-38, AND 1939 TO DATE



U. S. DEPARTMENT OF AGRICULTURE NEG. 38228 BUREAU OF AGRICULTURAL ECONOMICS

THE POULTRY AND EGG SITUATION AT A GLANCE



A. M. S. DATA, EXCEPT NONAGRICULTURAL INCOME

**INDEX NUMBERS ADJUSTED FOR SEASONAL VARIATION*

U. S. DEPARTMENT OF AGRICULTURE

NEG. 38217 BUREAU OF AGRICULTURAL ECONOMICS

FIGURE 1

THE POULTRY AND EGG SITUATION

Summary

Total egg production during the first half of this year may equal or slightly exceed production in the corresponding months of 1939, even though production for the first 3 months of 1940 was slightly less than a year earlier. Egg production in the last half of the year, however, is expected to be less than a year earlier because of the prospective smaller hatch in 1940. Storage stocks of shell and frozen eggs during the first third of the into-storage season have not accumulated to the extent that they did last year. Hence, unless consumer buying power declines more than now seems probable, egg prices may tend to increase during the remainder of this year as compared with prices a year earlier. Egg marketings have about reached the seasonal peak for the year, and Federal Surplus Commodities Corporation purchases continue relatively large.

The price of chickens is expected to continue to rise relative to last year's prices despite the larger supplies of poultry now on farms. Reasons: the 1940 hatch is smaller than that of 1939, stocks of storage poultry (excluding turkeys) are smaller than a year earlier, and consumer's income is somewhat higher than a year earlier.

The out-of-storage movement of turkeys during March was the largest on record for that month, but stocks on April 1 continued much larger than a year earlier or than the average April 1 stocks. Marketings of poultry (fresh and frozen) are nearing the seasonal low.

Prices of feed probably will remain relatively high and the feed-egg ratio will continue unfavorable for producers during the next few months. Poultry feed costs in the last half of the year will be affected to a considerable extent by the size of the 1940 feed crops.

FEED-EGG RATIO

The feed-egg ratio, based on Chicago prices, is more unfavorable to to poultrymen than at any other time since the middle of 1937. For the week ended April 20, 8.28 dozen eggs were required to buy 100 pounds of poultry feed compared with 6.69 dozen a year earlier and 6.71 dozen for the 1929-38 average. Feed prices have risen sharply in recent weeks, and there appears to be little possibility of a more favorable feed-egg ratio during the first half of this year. During the last half of 1940 feed prices will depend upon the size of the harvest and upon factors affecting the domestic demand for feed grains.

Feed-egg ratio at Chicago

(Dozens of eggs required to buy 100 pounds of poultry ration)

Year	Week ending as of 1940											
	Jan.	Mar.		Apr.				May			July	Oct.
	27	23	30	6	13	20	27	4	11	18	27	26
	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.
Average 1929-38	5.55	6.43	6.60	6.71	6.80	6.71	6.68	6.64	6.58	6.64	6.62	4.62
1938	6.39	6.56	6.70	6.58	6.70	6.10	5.85	5.73	5.78	5.61	5.12	3.79
1939	6.65	6.28	6.35	6.39	6.55	6.69	6.65	6.84	6.99	7.14	6.76	5.13
1940	5.38	7.51	7.59	7.49	7.84	8.28						

HATCHINGS

Relatively high feed prices continue to cause a weak demand for baby chicks. Commercial hatchings during the first 3 months of 1940 were 23 percent below a year earlier. A major part of the decrease during these months was in the commercial broiler area; a decline in total hatchings for the season of from 2 to 7 percent is expected for the country as a whole compared with 1939.

Hatchery reports for March indicate that 6 percent fewer eggs were set and 11 percent fewer chicks hatched during the month than a year earlier. A survey made in mid-April indicated that about 7 percent fewer eggs were set in the first half of the month than in the same period of 1939.

POULTRY SITUATION

Poultry marketings

Receipts of dressed poultry (fresh and frozen) at the four principal markets during the four weeks ended April 20 were 17 percent larger than in the corresponding period of 1939 and 22 percent above the 1929-38 average. Receipts probably will continue heavier than a year earlier during the next several weeks, but thereafter receipts probably will average smaller than at the same time last year as a result of the smaller hatch in 1940.

Receipts of dressed poultry at four markets
(New York, Chicago, Philadelphia, Boston)

Year	Week ending as of 1940								
	March		April				May		June
	23	30	6	13	20	27	4	11	29
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
Average 1929-38	3,339	3,596	3,552	3,532	3,492	3,793	4,160	4,092	5,310
1938	2,541	3,552	2,747	3,407	2,536	3,117	3,848	4,129	5,349
1939	4,308	3,868	3,730	3,480	3,759	3,640	4,683	5,672	6,139
1940	4,713	4,395	3,844	4,881	4,169				

Poultry storage

Stocks of frozen poultry in the United States on April 1 were 26 percent larger than a year earlier and 42 percent larger than the 1929-38 average for that date. The larger stocks this year are attributed to the 140 percent larger stocks of turkeys; the 22 percent larger stocks of fowl were more than offset by smaller stocks of other classes.

The out-of-storage movement for all poultry has probably passed the seasonal peak but may continue heavier than a year earlier for several weeks. The actual volume of turkeys moved out of storage during March was about twice that of other years, but the percentage of the total stocks of turkeys moved out was only slightly larger than usual.

Storage stocks of frozen poultry at 26 markets

Year	Week ending as of 1940					
	Storage stocks	Out-of-storage movement, April				Storage stocks
	Mar. 30	6	13	20	27	Apr. 27
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
Average 1929-38	63,859	4,432	4,325	4,046	3,525	47,531
1939	70,224	4,692	4,059	3,982	3,887	53,604
1940	90,470	5,158	4,915	5,455		

Chicken prices

The increase during the past month in the price received by farmers for chickens was somewhat less than seasonal, and the April 15 price of 12.9 cents continued 1.5 cents below a year earlier and 3.0 cents below the 10-year average. However, because of the smaller hatch this year and the expected higher level of consumer incomes, chicken prices probably will be higher during the latter part of 1940 than in the corresponding period of 1939.

Price per pound received by farmers for chickens

Year	Jan. 15	Feb. 15	Mar. 15	Apr. 15	May 15	June 15	July 15	Aug. 15	Sept. 15	Oct. 15	Nov. 15	Dec. 15
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Average: 1929-38	14.8	15.0	15.3	15.9	15.7	15.5	15.1	14.9	15.2	14.6	14.1	13.6
1938	16.7	16.0	15.9	16.2	16.1	15.7	15.0	14.2	14.3	13.6	13.6	13.6
1939	14.0	14.2	14.3	14.4	13.9	13.4	13.7	13.0	13.6	12.7	12.4	11.7
1940	12.0	12.2	12.8	12.9								

EGG SITUATION

Number of layers on farms

The number of hens and pullets on farms during March this year was about 3 percent larger than in the same month last year. The net decrease in the number of layers on farms since January 1 has been somewhat less than usual. But with the unfavorable feed-egg ratio this year, closer than average culling may be expected during the next several months.

Number of layers on farms, United States

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Millions	Millions	Millions	Millions	Millions	Millions	Millions	Millions	Millions	Millions	Millions	Millions
Average: 1929-38	335	328	318	304	287	270	256	250	259	280	303	325
1938	307	301	292	278	262	248	236	234	245	269	293	314
1939	322	316	306	292	276	260	246	242	253	279	305	326
1940	332	327	318									

Egg production

Estimated total egg production for March was slightly larger than a year earlier. The smaller rate of lay per bird during March was slightly more than offset by the larger number of hens on farms. Production per layer on April 1 continued less than a year earlier.

Egg production during the next few months will depend largely upon the number of layers culled, but it probably will be larger than a year earlier, and during the first half of this year total egg production probably will equal or slightly exceed production a year earlier. During the last half of the year, however, total production may be slightly less than in the same months of 1939.

Average number of eggs produced per layer, United States

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Average 1929-38	6.3	8.6	14.2	16.6	16.7	14.2	12.7	11.1	8.9	6.7	4.8	5.0
1938	7.9	9.9	15.4	17.5	17.3	14.9	13.6	11.8	9.4	7.5	5.9	6.4
1939	8.0	9.7	14.5	17.0	17.0	14.6	13.2	11.7	9.3	7.4	6.0	6.8
1940	7.2	9.0	14.4									

Total farm production of eggs, United States

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases	Mil. cases
Average 1929-38	5.9	7.9	12.5	14.1	13.3	10.6	9.0	7.7	6.4	5.2	4.0	4.4
1938	6.7	8.3	12.5	13.5	12.6	10.3	8.9	7.6	6.4	5.6	4.8	5.5
1939	7.2	8.5	12.4	13.8	13.0	10.6	9.1	7.8	6.5	5.7	5.1	6.1
1940	6.7	8.2	12.7									

Egg marketings

Receipts of eggs at the four principal markets have about reached the seasonal peak. During the 4 weeks ended April 20, receipts at these markets were about the same as a year earlier but about 4 percent smaller than the 10-year average for those weeks.

Receipts of eggs at four markets
(New York, Chicago, Philadelphia, Boston)

Year	Week ending as of 1940								
	March		April				May		June
	23	30	6	13	20	27	4	11	29
	1,000 cases	1,000 cases	1,000 cases	1,000 cases	1,000 cases	1,000 cases	1,000 cases	1,000 cases	1,000 cases
Average 1929-38	403.6	444.4	475.7	502.8	485.1	500.5	438.9	486.0	316.9
1938	412.1	449.5	466.9	464.4	381.7	422.9	444.5	414.9	260.8
1939	418.8	437.0	460.4	468.9	473.5	501.6	498.7	521.1	291.3
1940	438.8	419.7	432.3	469.8	518.6				

Egg storage

The into-storage movement for shell eggs has about reached the seasonal maximum but the rate so far has been smaller than a year earlier. Hence, storage stocks are smaller than at this time last year.

The into-storage movement for frozen eggs is now proceeding at about the average rate but, because of the late start, storage stocks are smaller than a year earlier.

Storage stocks of eggs at 26 markets

Year	Week ending as of 1940					
	Storage stocks Mar. 30	Into-storage movement, April 6	13	20	27	Storage stocks Apr. 27
	1,000 cases	1,000 cases	1,000 cases	1,000 cases	1,000 cases	1,000 cases
Shell						
Average 1929-38	789	355	417	462	502	2,525
1939	646	266	360	419	412	2,103
1940	512	253	333	395		
Frozen						
1939	942	93	110	102	109	1,356
1940	654	91	95	97		

Egg prices

The decline in the price received by farmers for eggs from 15.4 cents in mid-March to 15.0 cents in mid-April was about seasonal. However, the price on April 15 was 0.5 cent below that of a year earlier and 1.8 cents below the 1929-38 average.

The higher level of consumers' income, and the expected smaller supplies of eggs during the last half of 1940 than in the same period in 1939, will tend to bring about higher egg prices, relative to last year, during coming months.

Price per dozen received by farmers for eggs

Year	Jan. 15	Feb. 15	Mar. 15	Apr. 15	May 15	June 15	July 15	Aug. 15	Sept. 15	Oct. 15	Nov. 15	Dec. 15
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Average 1929-38	24.2	20.3	17.3	16.8	16.8	16.8	18.1	19.9	23.2	26.2	30.1	28.8
1938	21.6	16.4	16.2	15.9	17.6	18.2	19.9	21.0	24.9	27.1	29.0	27.9
1939	18.8	16.7	16.0	15.5	15.2	14.9	16.5	17.5	20.6	22.9	25.8	20.5
1940	18.3	20.2	15.4	15.0								

DOMESTIC DEMAND

Conditions which affect the domestic demand for farm products continued their downward trend during March but the rate of decline was less marked than in January and February. The rate of decline of industrial production during March was considerably less than in either January or February and weekly data indicate that approximate stability was reached by April. Incomes of consumers declined during April, and may decline further in May because of the usual lag in response to a change in industrial production. However, consumers' incomes probably will continue higher than a year earlier during most if not all of 1940.

Index numbers of nonagricultural income

(1924-29 = 100, adjusted for seasonal variation)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Average 1929-38	85.2	85.1	85.4	85.0	84.3	85.4	84.7	84.7	84.4	84.5	84.2	84.1
1938	88.9	88.1	87.9	87.0	86.1	86.1	86.2	88.0	88.3	89.0	89.8	90.3
1939	90.6	90.6	91.1	90.1	90.5	91.7	91.8	93.1	93.4	95.4	96.1	96.6
1940	96.4	95.4	1/94.8									

1/ Preliminary.

* * * * * * *

A COMPARISON OF FOUR FEED-EGG RATIOS

The Poultry and Egg Situation is designed primarily to analyze from a national standpoint current developments affecting the outlook for the poultry industry. An important factor in this outlook is the trend in the number of chickens on farms; and in order to forecast this trend, it is necessary to have a rough measure of the changes in the profitableness of egg production. One useful measure is a ratio of feed prices to egg prices - a feed-egg ratio.

With the exception of the first few issues of the Poultry and Egg Situation, first published in January 1937, a ratio based on Chicago prices is the only feed-egg ratio which has appeared in tabular or chart form. This particular feed-egg ratio is believed to be more nearly representative of conditions for the country as a whole than any other feed-egg ratio for a single market because it is based on prices in a market located near the heart of the greatest single feed-producing area and the most important surplus egg-producing area in the United States.

The farm feed-egg ratio (based on prices received and paid by farmers) probably more nearly represents average farm conditions for the United States than the Chicago ratio, but its monthly data as of the 15th of the month are not published until the 15th of the following month. The Chicago ratio, on the other hand, is based on weekly data and becomes available shortly after the end of each week. A weekly ratio has the added advantage of reflecting short-time fluctuations which may be obscured in a ratio based on monthly averages or on a single observation for one day in the month. The farm ratio also is necessarily heavily weighted for the important poultry-producing areas in the midwestern States, so a close similarity between the Chicago ratio and the farm ratio would be expected.

The question frequently arises, however, as to whether the Chicago ratio is a reliable measure of changes in relative feed costs in different regions of the country. The prices of eggs in different sections of the United States generally fluctuate together quite uniformly. Any differences between prices other than those due to transportation costs can be eliminated by a comparatively economical intermarket movement of eggs, since the transportation cost is low compared to the total value. Hence, egg prices would be expected to cause no major discrepancies between ratios for separate regions. However, feed prices present a different situation. Freight rates on feed are high in relation to the value, thus making the cost of any major interregional movement high. Price differences between regions are unusually large at times because of the occurrence of droughts in certain areas, which cause them to shift from surplus to deficit areas so far as feed supplies are concerned. High feed costs are a usual result. Thus, egg prices fluctuate quite uniformly for the country as a whole, whereas feed prices tend to fluctuate somewhat independently in the different areas.

The varying costs of the individual ingredients used in poultry rations and the different feeding practices followed in different areas of the United States make it advisable to use different formulas for poultry rations

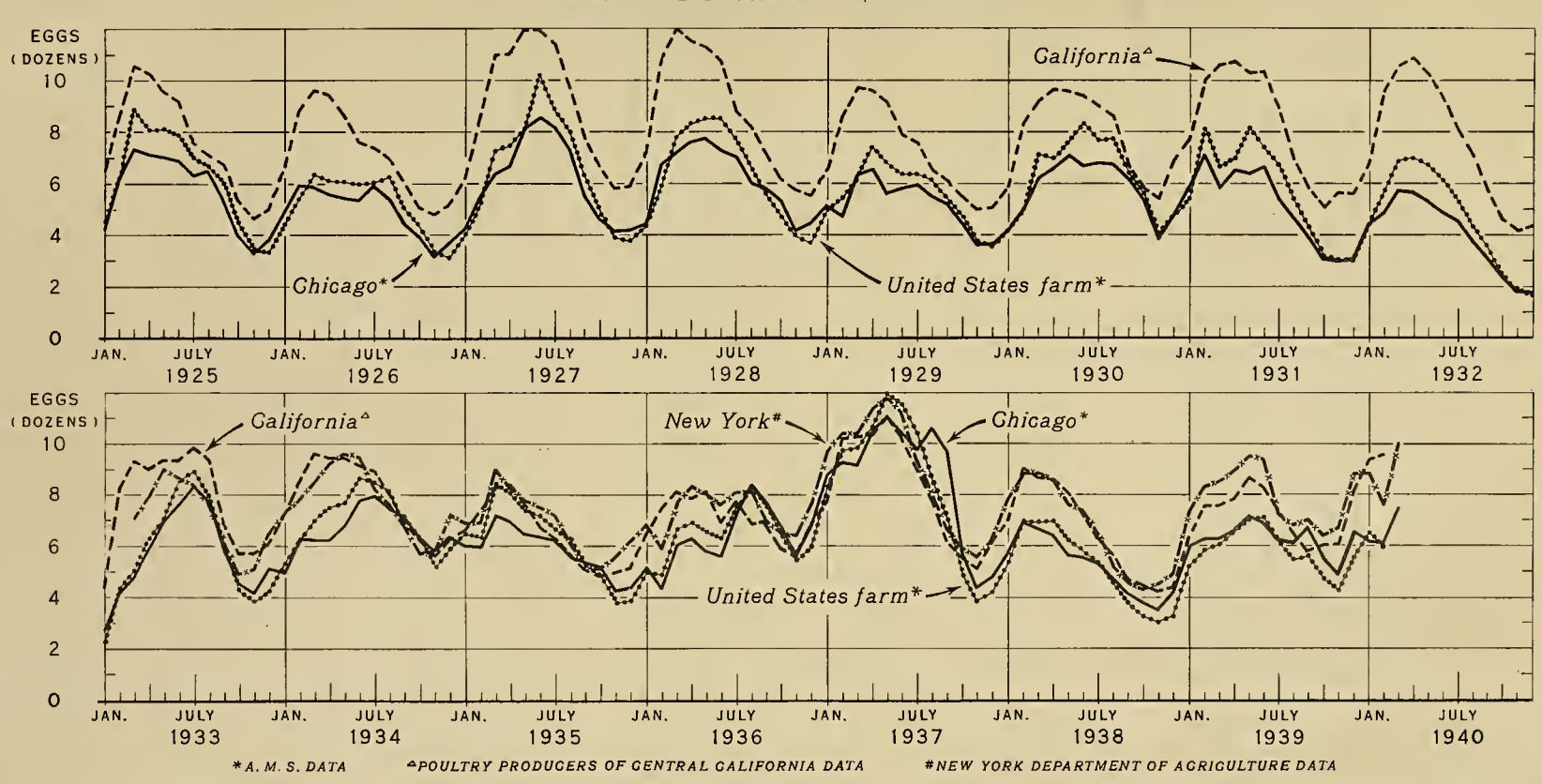

FEED-EGG RATIOS, 1925-40
EGGS
(DOZENS)
10
8
6
4
2
0
California△
Chicago*
United States farm*
JAN.
JULY
1925
1926
1927
1928
1929
1930
1931
1932
EGGS
(DOZENS)
California△
New York#
Chicago*
United States farm*
1933
1934
1935
1936
1937
1938
1939
1940
*A. M. S. DATA
△POULTRY PRODUCERS OF CENTRAL CALIFORNIA DATA
#NEW YORK DEPARTMENT OF AGRICULTURE DATA
U. S DEPARTMENT OF AGRICULTURE
NEG. 38229 BUREAU OF AGRICULTURAL ECONOMICS

FIGURE 2

in the various regional feed-egg ratios. Likewise, it is probable that the formulas for poultry rations are changed from time to time as the prices of the various feeds fluctuate relative to each other. Poultry feeders are able to cheapen their rations considerably by utilizing the most economical feeds at any particular period and at the same time can approximately maintain the desired nutritive content. These considerations have received little recognition in the United States to date in constructing feed-egg ratios, but perhaps added attention will be given them in the future.

It is of interest, however, to compare several feed-egg ratios which are now being published and which apply to different regions in order to see whether they do fluctuate up and down together and whether the discrepancies follow any regular pattern. The following series have been compared in figure 2.

(1) The Chicago feed-egg ratio is based on the price of fresh firsts at Chicago and prices of corn, wheat, oats, barley, bran and tankage at that market. This ratio is published in the Dairy and Poultry Market News Report for Chicago and Philadelphia and in the Poultry and Egg Situation. Monthly averages were obtained from the weekly data for each month.

(2) The farm feed-egg ratio is based on the farm price of eggs and the farm prices of feeds as of the 15th of the month. The same feeds are used as in the Chicago ratio. It is published in the monthly Poultry and Egg Production report.

(3) The California feed-egg ratio is based on the prices of laying rations (50 percent mash and 50 percent scratch) delivered at Petaluma, California, and the average price received by farmers for eggs in that State as of the 15th of the month. This ratio is computed by the "Poultry Producers of Central California" and is published currently in their publication, "Nulaid News".

(4) The New York feed-egg ratio is based on feed prices (50 percent mash and 50 percent scratch) in the Rochester-Syracuse zone and prices of eggs at New York City. It is computed by the State of New York Department of Agriculture and Markets and is published in various trade papers. This series is also published weekly, but monthly averages were obtained from the weekly data.

The Chicago ratio and the farm ratio fluctuate quite uniformly. The California ratio, prior to 1932, was much higher than either of the other ratios for those years. Since about 1933, however, the California ratio has decreased relative to the others, but it is still generally above both the Chicago and the farm ratios. The New York ratio has been consistently above all the other ratios, reflecting the higher feed costs relative to egg prices in the Northeast area.

Another important consideration in these comparisons is the uniformity or lack of uniformity in the seasonal movement. It is evident that each series has a well-defined seasonal movement which is fairly uniform for all

series within any one year, although the apparent seasons differ considerably from year to year.

In general, the different series fluctuate fairly uniformly from year to year, but the spread between the series varies somewhat with the seasons of the year. The California and New York ratios are higher, relatively, in the spring months than the Chicago or farm ratios. To this extent the Chicago ratio is not representative of all regions. But it appears that if some allowance is made for this changing differential, the Chicago ratio may be used to indicate, with a fair degree of accuracy, the changes in the relative feed costs for all regions of the United States. For this reason, the Chicago ratio will continue to be carried in the Poultry and Egg Situation, but mention of the other ratios will be made whenever unusual discrepancies occur.

H. C. KRIESEL.

UNIVERSITY OF FLORIDA
3 1262 08903 9456

INDEX OF SPECIAL SUBJECTS DISCUSSED IN THE POULTRY AND EGG SITUATION

Subject	Pages	Issue
A comparison of four feed-egg ratios	10-13	This issue
Special outlook report for turkeys	12-14	April 2, 1940
Changes in method of reporting egg production and number of layers	7	April 2, 1940
Forecast of 1940 hatchings and chicks and young chicks on farms, June 1, 1940	5-6	March 2, 1940
Estimated storage margin on shell eggs per dozen, average 1916-35 and 1925-34, annual 1935-39	11-12	March 2, 1940
1916-37	9	February 1, 1938
Change in official index of seasonal variation of farm egg prices	9	February 2, 1940
Feed-egg ratio defined	10-11	December 4, 1939
Nonagricultural income index revised, by months, 1929-39	11-12	December 4, 1939
Effects of the World War and possible effects of the present war	4-7	November 10, 1939
Long-time factors in the chicken and egg outlook	13-14	November 10, 1939
Long-time factors in the turkey outlook	20-22	November 10, 1939
Production of poultry feed grains and November feed-egg ratio	4-5	September 1, 1939